



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,154	10/10/2000	Claudia J. Quigley	105690-136 (MKS-78)	4588

7590

09/10/2003

Richard A. Goldenberg
HALE AND DORR LLP
60 State Street
Boston, MA 02109

EXAMINER

FERGUSON, MARISSA L

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,154

Applicant(s)

QUIGLEY ET AL.

Examiner

Marissa L Ferguson

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20, 22-24, 29-31, 33 and 34 is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-17, 21, 25-28 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2854

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,7-12,14-17,21, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art ("AAPA") in view of Chen et al. (US Patent 6,423,949).

Regarding claims 1,9,11,15-17,21,25-28 and 32, AAPA teaches a pressure transducer assembly and method including a shell (120), a pressure sensor disposed in a shell (140) and a heater attached to a shell (130). However, AAPA does not disclose a heater including a first heating element and a second heating element, a first heating element being characterized by a first electrical resistance, the second heating element being characterized by a second electrical resistance and wherein a first electrical resistance being different than a second electrical resistance.

Chen et al. teaches a heating apparatus comprising a pressure indicator (145) that has at least two heating elements with varying resistances (Column 4, Lines (30-67 and reference made throughout patent) used for controlling a temperature.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention as taught by AAPA to include two

Art Unit: 2854

heating elements as taught by Chen et al., since Chen et al. uses the elements to control the temperature and improve uniformity.

Regarding claim 2, AAPA teaches one or more electronic components 136,170,172,180) for applying an electrical signal to the heater, the heater generating heat in response to the electrical signal.

Regarding claim 7, AAPA teaches a pressure sensor including a flexible diaphragm (140).

Regarding claim 8, AAPA teaches a pressure sensor including a conductor (142), wherein a diaphragm and a conductor being characterized by a capacitance (Page 2, Lines 6-8).

Regarding claim 10, AAPA teaches a method with a first heater (132) comprising a first heating element (132a-f).

Regarding claim 12, AAPA teaches a method with a second heater (134) comprising a second heating element.

Regarding claim 14, AAPA teaches including using a first and second heater to apply heat to a pressure sensor (Page 1, Last Paragraph and Page 3)

Regarding claims 25 and 32, AAPA teaches a housing (112,114) disposed around a shell (120).

Regarding claims 26, AAPA teaches a heater (130) is disposed between a shell (116) and a housing (112,114).

Regarding claims 27 and 28, AAPA teaches a method disposing a first and second heater (132,134) between a shell (120) and outer housing disposed around a shell (112,114).

2. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art ("AAPA") in view of Chen et al. (US Patent 6,423,949) as applied to claim 1 above, further in view of Johnston (US Patent 4,176,557).

AAPA and Chen et al. together teach the invention except for a connector for selectively connecting a first heating element and a second heating element in series with the one or more electronic components and a connector for selectively connecting a first and a second heating element in parallel with one or more electronic components. Johnston teaches connecting a plurality of heat element resistances in series and parallel connections (Column 6, Lines 7-41)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention as taught by AAPA to include two the elements as taught by Johnston, since Johnston connects the resistances in order to maintain and control the temperature.

Allowable Subject Matter

3. Claims 18-20,22-24,29-31,33 and 34 are allowed

Response to Arguments

4. Applicant's arguments with respect to claim1-12 and 14-24 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2854

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (703) 305-3194. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Marissa L Ferguson
Examiner
Art Unit 2854

MLF


ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800